

ARIZONA DEPARTMENT OF TRANSPORTATION

ENGINEERING CONSULTANTS SECTION

STATEMENT OF QUALIFICATIONS PACKAGE

FOR CONTRACT NO. 07-34

**STATEWIDE ON-CALL
ENGINEERING SERVICES FOR
INTELLIGENT TRANSPORTATION SYSTEMS (ITS)**

MULTIPLE SELECTION



MAY 2007

**STATEMENT OF QUALIFICATIONS PACKAGE
FOR**

CONTRACT NO. 07-34

**STATEWIDE ON-CALL SERVICES ENGINEERING SERVICES FOR
INTELLIGENT TRANSPORTATION SYSTEMS (ITS)**

MULTIPLE SELECTION

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SECTION I
PUBLIC ADVERTISEMENT

FOR PUBLICATION MAY 16, 2007 and MAY 23, 2007
IN THE TRIBUNE NEWSPAPERS.
(Mesa Tribune, Chandler Arizonan & Tempe Daily News)

ARIZONA DEPARTMENT OF TRANSPORTATION
ENGINEERING CONSULTANTS SECTION

PUBLIC NOTICE FOR CONSULTANTS INTERESTED IN PROVIDING ON-CALL PROFESSIONAL
ENGINEERING SERVICES FOR INTELLIGENT TRANSPORTATION SYSTEMS (ITS)
STATEWIDE

MULTIPLE SELECTION

ECS CONTRACT NO. 07-34
TRACS NO. VARIOUS

Statements Due: MAY 31, 2007

The ARIZONA DEPARTMENT OF TRANSPORTATION is accepting Statements of Qualifications from firms to provide professional engineering services for Intelligent Transportation Systems (ITS) on an on-call basis.

Statements of Qualifications will be received until 4:00 p.m. Arizona Time on the above referenced date, at ADOT Engineering Consultants Section, 205 South 17th Avenue, Room 293E, Mail Drop 616E, Phoenix, Arizona 85007. **No Statements will be accepted after the time specified.**

For further information contact ADOT Engineering Consultant Section, (602) 712-7525 or www.azdot.gov/Highways/ECS. Statement of Qualification packages for Contract No. 07-34 are available for pickup at the ADOT Engineering Building, 205 South 17th Avenue, Room 293E, Phoenix, Arizona 85007.

SECTION II

INFORMATION COPY TO CONSULTANTS

ARIZONA DEPARTMENT OF TRANSPORTATION
ENGINEERING CONSULTANTS SECTION

INFORMATION COPY TO CONSULTANTS

REQUEST FOR STATEMENTS OF QUALIFICATION FOR
CONSULTANTS INTERESTED IN PROVIDING ON-CALL PROFESSIONAL
ENGINEERING SERVICES FOR INTELLIGENT TRANSPORTATION SYSTEMS (ITS)
STATEWIDE

MULTIPLE SELECTION

ECS CONTRACT NO. 07-34
TRACS NO. VARIOUS

Statements Due: MAY 31, 2007

Statements of Qualifications expressing interest in the project will be received until 4:00 P.M. (Arizona Time) on the date shown above, at the office of Engineering Consultants Section, 205 South 17th Avenue, Room 293E, Mail Drop 616E, Phoenix, Arizona 85007. NO Statements will be accepted after the time specified.

Statements will be accepted from any firm or corporation who is properly registered with the Arizona Board of Technical Registration and who has a principal or officer responsible for this contract that is properly registered with the Arizona Board of Technical Registration at the time the Statements of Qualifications are due.

The selected consultant will provide on an on-call basis professional engineering services for design of Intelligent Transportation Systems (ITS) projects and the application of advanced technologies to the Department's transportation needs.

The consultant may be required to perform services including, but not limited to Variable Message Sign, Closed Circuit TV (CCTV), Traffic Signals Systems, Ramp Metering Systems, and Communications Systems for gathering, and disseminating information to the users, Road Weather Information Systems (RWIS) and Construction Support.

Effective this date May 16, 2007, no further contact is allowed with the Project Manager with the following exception.

In lieu of a Pre-Submittal meeting, the Department has chosen the option to dedicate the week of May 21-25, 2007, to allow any firm to make an appointment with Farzana Yasmin, Project Manager, telephone (602) 712-8328, for a maximum of one hour. At that time, the Project Manager will answer the consultant's specific questions.

Questions of an administrative or contractual nature can be directed to Fran Lutrell, Contract Management Specialist, Engineering Consultants Section, telephone (602) 712-7320.

The Engineering Consultants Section Statement of Qualifications format for Contract No. 07-34 shall be followed when expressing interest in this project. The Statement of Qualifications package, or information regarding same, may be obtained from the address shown above, telephone (602) 712-7525. **Statements of Qualifications not following the correct format will be rejected.**

In order to qualify for selection, a firm must have on file with the Department a current "Prequalification Statement" or submit same with the Statement of Qualifications. Prequalification Statement forms may be obtained from the address shown above, telephone (602) 712-7525.

The Department may select three (3) or more firms from among those submitting Statements of Qualification for further consideration. Previous experience in FMS design will be a factor in the selection.

The selected consultants and their subconsultants will be required to submit the Consultant Audit Questionnaire and comply with the Advance Agreement Checklist as detailed in SECTION VIII of the SOQ Package.

All material submitted in accordance with this solicitation becomes the property of the State of Arizona.

Lobbying certification/disclosure certification statement will be required in the introductory letter from those submitting Statements of Qualifications.

The right is reserved by the Department to reject any and all Statements of Qualification.

Professional Liability Insurance will be required.

The Boiler Plates for all Engineering Consultant Section Contracts are not negotiable.

Partnerships (joint-ventures) will not be considered.

Reviewing the successful Proposal(s) would be allowed but copying is not permitted.

Inclusion of work hour and/or plan sheet estimates in the SOQ will not be allowed.

SECTION III

STATEMENT OF QUALIFICATIONS FORMAT INSTRUCTIONS

ENGINEERING CONSULTANTS SECTION
STATEMENT OF QUALIFICATIONS FORMAT INSTRUCTIONS
CONTRACT NO. 07-34

Provided for your use is the format for submission of a STATEMENT OF QUALIFICATION.

1. EIGHT (8) COPIES OF THE STATEMENT OF QUALIFICATION ARE REQUIRED BY ADOT.
2. There is a TOTAL PAGE LIMIT of TWENTY-FIVE (25) pages. The proposal may include clear report covers, covers, dividers, table of contents, tables, figures, maps, etc., but these must fit within the 25 page limit. A page shall be 8 1/2 X 11 inches, blank, or printed on one side only. Fold out pages are not allowable.

3. The SOQ proposal must follow the format outlined below:

	<u>FORMAT CONTENT</u>	<u>MAXIMUM POINTS</u>	<u>TOTAL NUMBER OF PAGES</u>
	FRONT COVER (Optional, but if included will count as a page)		
PART A	INTRODUCTORY LETTER		
PART B	EVALUATION CRITERIA May include information to support Criteria.		
	1. Project Understanding & Approach	35	
	2. Project Team	30	
	3. Firms Capability	30	
	4. Location of Work	5	
PART C	CONSULTANT FIRM INFORMATION PAGE		
	BACK COVER (Optional, but if included will count as a page)		
		<u>TOTAL POINTS</u>	<u>TOTAL PAGES</u>
	TOTAL POINTS	100	25

4. Any amendments issued on the SOQ and included in the SOQ, as required, will NOT be counted as pages.
5. Submissions failing to follow all instructions outlined above will be rejected and the Consultant notified in writing of the reason(s) for rejection.

ENGINEERING CONSULTANTS SECTION
Statement of Qualifications
Format and Evaluation Criteria
for Contract No. 07-34

The following describes more specifically, the content of each part.

PART A, INTRODUCTORY LETTER

The introductory letter should be addressed to:

Arizona Department of Transportation
Engineering Consultant Section
205 South 17th Avenue
Room 293E, Mail Drop 616E
Phoenix, Arizona 85007

The introductory letter should contain the following items:

- An expression of the firm's interest in being selected for the project.
- A statement that the firm is pre-qualified with ADOT, or that the necessary pre-qualification information is being submitted with the proposal.
- A statement confirming the commitment of the key personnel identified in the submittal to the extent necessary to meet ADOT's quality and schedule expectations.
- Provide name and Professional Engineers registration number of the principal or officer responsible for this contract that is properly registered with the Arizona Board of Technical Registration at the time the Statements of Qualifications are due.
- A summary of key points regarding the firm's qualifications.
- A statement that the Consultant certifies, by signing and submitting this proposal to the best of his or her knowledge and belief, that no Federally appropriated funds have been paid or will be paid, by or on behalf of the undersigned for the purpose of lobbying (Refer to Section V).

PART B, EVALUATION CRITERIA

The information that should be included in the discussion of qualifications is outlined here.

1. Project Understanding and Approach

- a. Discuss generally the tasks involved in this project. Identify any special issues or problems that are likely to be encountered. Demonstrate clearly and concisely your understanding of the technical and institutional elements with which the consultant must deal.
- b. Outline your proposed approach for dealing with the tasks and issues of this project. A graphical depiction may be included with the evaluation criteria.
- c. Explain how your firm will use Partnering in this project. (Relates to Construction Administration only.)

2. Project Team

Identify your proposed project team and its collective qualifications for this particular project. In particular, discuss the following:

- a. Project Principal. Identify the person (or persons) who (1) will be responsible for ensuring that adequate personnel and other resources are made available for this project; (2) will handle contractual matters, and; (3) will be ultimately responsible for the quality and timeliness of the consultant's performance. State that person's position and authority within the firm. Discuss previous similar projects for which this person has performed a similar function.

- b. Project Manager. State who will actively manage this project. Identify any projects that person will be involved with concurrently and time committed to each project. List recent similar projects for which this person has performed a comparable function. Discuss relevant experience, professional registrations, education and other components of qualifications applicable to this project.
 - c. Project Engineer(s) and/or Other Key Personnel. Identify other members of the project team including subconsultants that provide special expertise or will perform key tasks. Describe their anticipated roles. Discuss their relevant experience, registration, education and other elements of qualification applicable to this project.
3. Firm Capability
 - a. Discuss recent relevant experience of the firm. Projects listed should be similar in nature to the current project and to the extent possible involve team members proposed for this project.
 - b. Discuss quantitatively how this project would impact the current and anticipated work load of the office which will perform this work. If "staffing up" will be necessary, discuss which areas and how that would be accomplished.
 - c. Describe any special equipment, software or other resources your firm has which will enhance your ability to accomplish this project. This includes familiarity with ADOT software requirement and FMS/ITS software.
 - d. Describe your internal procedures for developing, monitoring and maintaining project schedules and budgets.
 - e. Describe your internal quality control procedures.
 - f. Describe any notable expertise, increase in capacity or other special capabilities of your subconsultants that are critical to your proposal.
 - g. Describe how your quality program would enhance the development of this project.
 - h. Describe your internal procedures for providing partnering education and development. (Relates to Construction Administration only.)
4. Location of Work.

Describe where the key elements of this work will be performed by the Prime Consultant and the Subconsultants. ECS will award points based on the following criteria:

Less than 50% of all work done in state	0 points
At least 50% but less than 95% of all work done in state	1 point
At least 95% of all work done in state	3 points
100% of all work by the Prime and Subconsultants must be performed in State. Prime must be project convenient (within 35 miles of principal job site).	5 points

**STATEMENT OF QUALIFICATIONS/SELECTION
PANEL COMMENT FORM**

FIRM NAME _____ # _____ PANEL MEMBER _____

1. PROJECT UNDERSTANDING AND APPROACH

What did you like about the firm's understanding and approach?

What did you dislike about the firm's understanding and approach?

What did you think about the way the firm handled special problems and/or special situations?

What parts of the understanding and approach did you think were well done?

What suggestions would you make to the firm to improve this section for the next time?

SCORE (35 Maximum) _____

PANEL RANKING FORM - Page Two

2. PROJECT TEAM

Team Strengths:

Team Weaknesses :

How are the team member's qualifications geared to this specific project?

SCORE (30 Maximum)

3. FIRM'S CAPABILITIES

Firm's strong areas as related to this project :

Firm's weak areas as related to this project:

PANEL RANKING FORM - Page Three

3. FIRM'S CAPABILITIES, CONTINUED

How did the firm fit the subconsultant's qualifications/duties into overall picture?

SCORE (30 Maximum)

(SCORES ARE TO BE ENTERED AND TOTALED ON SCORE SHEET)

=====

OTHER:

Any comments on the format and presentation of the SOQ?

Any other comments or suggestions?

SECTION IV
CONSULTANT FIRM INFORMATION PAGE

PART C - CONSULTANT FIRM INFORMATION PAGE

CONTRACT NO.: _____

CONTACT PERSON: _____

E-MAIL ADDRESS: _____

CONSULTANT FIRM: _____

ADDRESS: _____

CITY, STATE ZIP: _____

TELEPHONE: _____

FAX NUMBER: _____

ADOT CERTIFIED DBE FIRM? _____

AFFIRMATIVE ACTION ON FILE WITH ADOT? _____

SUBCONSULTANT(S)	TYPE OF WORK	ADOT CERTIFIED DBE FIRM
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

NOTE: The Consultant Firm Information Page must be a separate full page and is included in the total page count. This page is not evaluated by the Selection Panel, but is used by Engineering Consultants Section for administrative purposes.

SECTION V
LOBBYING CERTIFICATION

Lobbying Certification

The Consultant certifies, by signing and submitting this proposal (see statement in "Introductory Letter"), to the best of his or her knowledge and belief, that:

- (1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract grant, loan, or cooperative agreement.
- (2) If any funds other than Federally appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions. Copies of Form-LLL "Disclosure Form to Report Lobbying", are available at ADOT Engineering Consultants Section, 205 S. 17th Avenue, Mail Drop 616E, Room 293E, Phoenix, AZ 85007.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, and U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The proposer also agrees, by submitting its proposal, that it shall require that the language of this certification be included in all subcontracts and lower tier subcontracts which exceed \$100,000 and that all such subcontracts and lower tier subcontractors shall certify and disclose accordingly.

The Department will keep the Consultants certification on file as part of their original proposals. The Consultant shall keep individual certifications from all subcontractors and lower tier subcontractors on file. Certifications shall be retained for 3 years following completion and acceptance of any given project.

Disclosure forms for the Prime Consultant and or their subcontractors and lower tier subcontractors shall be submitted to the Contract Manager at the date Statements of Qualifications are due, when said subcontracts exceed \$100,000. During the performance of the contract the Consultant and any affected subcontractors shall file revised disclosure forms at the end of each calendar year quarter in which events occur that materially affect the accuracy of any previously filed disclosure form. Disclosure forms will be submitted by the Contract Manager to the Federal Highway Administration for further processing.

SECTION VI

ADOT EMPLOYEE POST EMPLOYEE EMPLOYMENT RESTRICTIONS

SUPPLEMENTAL SERVICES RESTRICTIONS



FIFE SYMINGTON
Governor

LARRY S. BONINE
Director

ARIZONA DEPARTMENT OF TRANSPORTATION

INTERMODAL TRANSPORTATION DIVISION
ENGINEERING CONSULTANTS SECTION
205 South 17th Avenue - Room 293E, Mail Drop 616E
Phoenix, Arizona 85007



THOMAS G. SCHMITT
State Engineer

March 7, 1996

Engineering Consultants Section

INFORMATION BULLETIN 96-04

TO: CONSULTANTS

FROM: ENGINEERING CONSULTANTS SECTION

SUBJECT: ADOT Employee Post Employment Restrictions

The purpose of this bulletin is to provide guidance to consultants in the employment of current or former ADOT employees to work on contracts administered by the Engineering Consultants Section. The following guidelines and policy are intended to avoid actual or perceived conflicts of interest. The reference to "current ADOT employee" applies to both full time employees and temporary employees.

1. A current ADOT employee cannot be employed by a consultant to work on active ADOT contracts.
2. A current ADOT employee cannot be included in a Statement Of Qualifications proposal for an ADOT consultant contract as an owner, an individual, or as a member of the consultants team. If an employee resigns to comply with this rule their last day of ADOT employment must be prior to the date that the proposals are due.
3. If a current or former ADOT employee is employed by a consultant which has an active ADOT contract for which the employee was a decision maker in the selection process or negotiated/approved billings or contract modifications, the employee is prohibited from working on these contracts (Policy and Implementation Memorandum 92-12).



Janet Napolitano
Governor

Victor M. Mendez
Director

Arizona Department of Transportation
Intermodal Transportation Division
206 South Seventeenth Avenue Phoenix, Arizona 85007-3213

Debra Brisk
Deputy Director

August 18, 2004

REVISED
INFORMATION BULLETIN NO. 04-05

TO: ADOT Project Managers/Monitors, Resident Engineers
And Consultant Engineering Firms

FROM: Engineering Consultants Section

SUBJECT: CONFLICT OF INTEREST
SUPPLEMENTAL SERVICES RESTRICTIONS

The purpose of this bulletin is to provide guidance to firms supplying supplemental service employees to ADOT under contracts administered by the Engineering Consultants Section (ECS)

The following restrictions are intended to avoid actual or perceived conflicts of interest. The reference to "ADOT contract employee" applies to both full time and part time contract employees

1. A current ADOT contract employee cannot be included in a Statement of Qualifications proposal for an ADOT consultant contract as a member of the consultant's team. Exceptions would be:
 - a. if the contract employee resigns to comply with this rule their last day of ADOT contract employment must be prior to the date that the proposals are due, or
 - b. if the employee's contract is in it's third year and within 4 months of the contract completion date, or
 - c. if the Department exercises it's option not to extend the existing contract.
2. If a current or former ADOT contract employee is employed by a consultant which has an active ADOT contract for which the contract employee was a decision maker (for example: involved in the final scope preparation, involved in the selection process or negotiated/approved billings or contract modifications), the employee is prohibited from working on these contracts.

As of this date, a copy of this information bulletin will be included in each ECS Statement of Qualifications package

If a waiver is requested from the above restrictions, a statement must be submitted to ECS describing the nature of their involvement prior to proposal submittal or work assignment. Resolution of potential conflicts of interest will be determined by ECS in conjunction with the applicable Deputy State Engineer

SECTION VII
SCOPE OF WORK

ARIZONA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION TECHNOLOGY GROUP

SCOPE OF WORK

INTELLIGENT TRANSPORTATION SYSTEMS (ITS)
ON-CALL ENGINEERING SERVICES

May 2007

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SCOPE OF WORK

100. PROJECT GOALS

The Arizona Department of Transportation (ADOT) is issuing this Statement of Qualifications (SOQ) to engage qualified engineering firms to provide professional engineering services in the area of Intelligent Transportation Systems (ITS) and advanced technologies, and the application of those technologies to the Department's transportation needs.

200. ORGANIZATION

The Arizona Department of Transportation (ADOT) retains consultants to perform a variety of engineering and technical services. The following sections define the responsibilities of ADOT, the consultant, and the scope of services. As each specific project is assigned under this contract, ADOT will designate a Project Manager who will work with and provide direction to the consultant. The Project Manager shall be the primary contact for the consultant for all technical issues related to this contract. All administrative and contract-related matters shall be directed to the Engineering Consultants Section.

300. PROJECT INITIATION

As consultant services are needed for a specific project, the ADOT Project Manager will issue a Task-Order, including the specific Scope of Work and required schedule and deliverables. Upon receipt of the consultant's proposal, a Notice-to-Proceed will be issued by ADOT for that project in compliance with the negotiated scope of services and schedule.

400. PROJECT SCHEDULE

The duration of services for the various projects to be completed under this contract may vary from a few weeks to several months depending on the specific project. The initial schedule for each project shall be submitted by the consultant within ten (10) working days of the Task-Order Notice to Proceed. The schedule needs to be 21 milestone in both graphic and word format.

The consultant shall schedule a kickoff meeting with all the stakeholders after the notice to proceed. A work breakdown structure, involvement matrix and work pyramid shall be included at the kickoff meeting.

401. Updates to Project Schedule

The consultant shall submit monthly updates to the project schedule in a format specified by the Project Manager.

402. Project Progress Meetings

The consultant shall arrange and attend the scheduled monthly progress meetings with the Project Manager and all other designated persons. The consultant shall meet with the project manager at least once before the kickoff meeting. Submittals required shall be turned in at least 2 days before the kickoff meeting for the project manager to review.

In addition to regular progress meetings the consultant shall plan on one after bid meeting to introduce and explain the project to construction and maintenance staff as well as the resident engineer. The meeting shall include a project lessons learned summary sheet for discussion between the project manager for ADOT and consultant. This shall be included as part of the project design, not post design services.

500. BACKGROUND

The Arizona Department of Transportation (ADOT) has embarked on a major program to implement ITS projects in the Phoenix and Tucson metropolitan areas, as well as in rural sections of the State. Because of the limited resources available within ADOT, many of the ITS projects undertaken and envisioned by the Department require the support services of the consulting engineers with expertise in this field. The following is a list of ITS engineering projects, which are completed or are currently underway by ADOT.

PROJECT	STATUS	DESCRIPTION
Phoenix FMS - Phase 1	Completed	Freeway Management System
Phoenix FMS - Phase 2	Completed	Freeway Management System
Phoenix FMS - Phase 3A	Completed	Freeway Management System
Phoenix FMS - Phase 4	Completed	Freeway Management System
Phoenix FMS - Phase 5	Completed	Freeway Management System
Phoenix FMS - Phase 6A	Completed	Freeway Management System
Phoenix FMS - Phase 6B	Under Design	Freeway Management System
Phoenix FMS - Phase 7A	Completed	Freeway Management System
Phoenix FMS - Phase 9	Design Completed	Freeway Management System
Phoenix FMS - Phase 10 & 11	Under Construction	Freeway Management System
Phoenix FMS- Phase 12	Under Design	Freeway Management System
Ramp Meter Phase 5	Design Completed	Freeway Management System
Tucson FMS - Phase 1	Under Construction	Freeway Management System
FMS Before-and-After Study	Completed	Evaluation of Phoenix FMS - Phase 1
Rural ITS - Phase 1	Completed	Installation of Road Weather Information Systems (RWIS) and variable message signs (VMS)
Rural ITS - Phase 2	Completed	Installation of Road Weather Information Systems (RWIS) and variable message signs (VMS).
EPIC - Phase 2	Under Design	Border-Crossing Electronic Clearance of Commercial Vehicles

600. DESIGN REFERENCES

ADOT has adopted certain design reference documents, which may be used for the design of the projects assigned under this contract. While possession of all these documents is not necessary to successfully complete every project, the consultant will be held responsible for designing in accordance with the applicable documents and current revisions and supplemental thereto.

700. DESIGN CRITERIA

Design of the projects to be completed under this contract will be guided by the basic design criteria listed in the Task-Order Scope of Work developed for each individual project.

800. SERVICES REQUIRED BY CONSULTANT

A broad range of services are anticipated under this ITS on-call contract, which require expertise for successful implementation of the projects. The Department will select consultants who are capable of providing some or all of the following ITS engineering and technical functions in order to support the Department's requirements.

801. Freeway Management System / Intelligent Transportation Systems

Designing real-time traffic monitoring and control system in order to manage the traffic on the roadway network more effectively, and to provide a safe and efficient environment for the motorists. The system generally consists of the dynamic message signs (DMS), closed-circuit television (CCTV) monitoring system, traffic interchange signal system, ramp metering system, vehicle detection, and communications system for gathering and disseminating information to the users.

802. Construction Support

After the completion of an ITS design project and start of the construction, ADOT may require certain post-design (construction support) services during the ITS field implementation. Some of the engineering and technical services are listed below:

- A. Review the construction submittals, engineering shop drawings, project schedule, and other pertinent documents.
- B. Review the as-built plans, design documents, and assist ADOT staff, as required.
- C. Advise the Department on how to proceed with the complicated repairs or upgrades.
- D. Observe, evaluate, and monitor contractor activities throughout the installation of the equipment.
- E. Have first-hand knowledge of the current equipment installation and configuration.
- F. Insure that contractor-supplied equipment will be compatible with the existing equipment and facilities.
- G. Assist ADOT in observing, monitoring, and participating in the formal testing conducted by the contractor throughout the installation of the equipment.
- H. Participate and assist in the installation and testing of state-furnished equipment (e.g., dynamic message signs).

803. Road Weather Information System (RWIS)

This system is predominantly installed in the cold regions to help keep roadways safe in all weather conditions. The system gathers detailed site-specific, real-time information on weather and pavement conditions, providing the Department an effective tool for the winter maintenance activities. The technologies used in this system include pavement and atmospheric sensors, remote processing units (for data collection, storage, and transmission), and central processing unit (for

data collection, storage, and presentation). In general, the consultant shall provide the following functions:

- A. Develop functional requirements.
- B. Identify an open-architecture communications protocol.
- C. Recommend the locations for RWIS stations.
- D. Review the communications requirements for each system identified.
- E. Assess user needs and corresponding data requirements.
- F. Identify database requirements and user interface requirements.
- G. Develop the overall plan, outlining the specific activities that will facilitate the development and deployment of a statewide RWIS.

804. Miscellaneous

- A. Dynamic Message Sign(DMS) System
- B. Closed-Circuit Television(CCTV) System
- C. Ramp Metering System
- D. Vehicle Detection System
- E. Traffic Signal Systems & Timing Plans, including integration with detection and ramp meters.
- F. Communications System
- G. Traffic Operations Center
- H. Traffic Operational Strategies
Develop the traffic operational strategies to respond to incident conditions on the freeway, utilizing the following elements:
 - 1. DMS messages to alert the motorists of incident conditions and/or diversion opportunities.
 - 2. Ramp metering rate changes for the entrance ramps.
 - 3. Traffic interchange signal timing plan changes.
- I. Before-and-After Studies
- J. Vehicle Infrastructure Integration

805. Utility and Railroad (U&RR)

- A. The consultant shall verify the location of the electrical power sources with the appropriate companies.
- B. The consultant shall obtain available utility and railroad data within the project limits, as needed, to determine the potential conflicts.

- C. The consultant shall prepare plans, showing the location of all the existing public and private utility and railroad lines, and indicate the potential areas of conflict between those lines and the project.
- D. The consultant shall arrange and conduct the utility and railroad coordination meetings to facilitate identification and resolution of the conflicts.
- E. If a utility or railroad conflict is identified, the consultant shall provide any possible alternative to minimize the conflict.
- F. The consultant shall indicate all the existing utility and railroad information on the 30% plans of the project.
- G. The consultant shall furnish copies of the 30%, 60%, and 95% plans to the ADOT Utility and Railroad Engineering Services (U&RR) and each company which has facilities in the area.
- H. The consultant shall include planned utility relocation on the 95% plans, if required.
- I. The consultant shall provide and submit all the necessary documents requested by the ADOT U&RR for clearing the project and work with the appropriate utility company to develop documentation for ADOT U&RR use in clearing the project.
- J. The consultant shall submit confirmation to the ADOT U&RR that electrical power load center addresses are accepted by the appropriate City agency.
- K. The consultant shall submit a document to the ADOT Project Manager, indicating that all the utility and railroad conflicts will be resolved and that the project may be cleared for bid advertisement with respect to the utilities and railroad. The ADOT Project Manager will then be responsible to obtain the required utility clearance letter from the U&RR.
- L. The consultant shall prepare requests for utility service and coordinate with utility companies for service installation. ADOT U&RR will be responsible for signing all requests for service.

806. Permits

The consultant shall obtain all the necessary permits from the appropriate municipalities prior to starting the fieldwork, if it is determined that certain activities will occur outside of the ADOT right-of-way. An ADOT District permit must also be obtained prior to performing the work within the ADOT right-of-way.

807. Surveys

The Consultant shall review the base plans and other data furnished by the ADOT Project Manager and various design engineers, and provide any additional field surveys necessary to prepare the design drawings for the project. The preparation of surveys, when necessary, shall meet the technical requirements of ADOT and the State of Arizona Board of Technical Registration.

The consultant shall conduct the bucket truck survey for placement of the devices. The consultant also needs to do the traffic control plan for the bucket truck survey.

808. Right-of-Way

- A. The Consultant shall determine the requirements for the new right-of-way and easement, and submit to ADOT, in writing, the findings of this determination before the 30% submittal. No revisions or additions to the right-of-way will be allowed after the 60% submittal without the approval of the ADOT Project Manager. This information will be used by ADOT to initiate the preparation of the right-of-way plans and documents. If new right-of-way or easement is required, ADOT will make the necessary acquisition and prepare the project clearance letter.
- B. If no right-of-way or easement is required for the construction, the consultant shall inform the ADOT Project Manager of such findings by submitting a document, stating that the project will be constructed within the existing ADOT right-of-way. The ADOT Project Manager will then request the required clearance documents from the ADOT Right-of-Way Group prior to the advertisement for construction.

809. Other Construction Projects

Prior to design of a project, the consultant shall coordinate with any existing, upcoming, and future projects within the project limits. It shall be the responsibility of the consultant to further investigate the nature of these activities and the possible effects on the project.

810. Plans, Specifications, and Estimates (PS&E)

The consultant shall prepare the plans, specifications, and estimates (PS&E) in accordance with the appropriate ADOT standard plans and specifications. The consultant is responsible for designing in accordance with the applicable documents and current revisions and supplements thereto.

The consultant shall prepare a complete construction bid package for designing a working ITS system using all the functional designs developed for that system, when applicable. Current ADOT policy requires that all plan sheets, details, specifications, quantities, unit pricing, etc., pertaining to a project, be designed using English units. Listed below are the descriptions of this package:

After every submittal the consultant need to complete the cost estimate in ADOT's E2C2 format. Project plans shall include an overview page with all devices summarized in one page. Plans shall include charts for pull boxes and devices with grid space of GPS coordinates. Cameras and devices shall have both stationing and GPS coordinates.

A. Stage I Documents (Project Assessment)

Stage I document of the project should detail the scope of the project. This document should also reference how the project fits into the FMS master plan. This initial submittal shall identify stakeholders, JPA's, needed, Utilities involvement and support disciplines needed. A quality plan and quality control program shall be detailed with the submittal.

The consultant shall develop the base mapping that will be used for the construction drawings. Aerial photographic surveying and supplemental ground surveying will be used, as needed, as well as the as-built documents supplied by ADOT, when available. The consultant shall also perform record

research of the public and private utilities, and reflect all the known existing utilities on the plans. Also need to do the traffic control plan for surveys.

B. Stage II Documents (30% Design Level)

The stage II document development should convey the basic design concept and features of the system. The consultant shall prepare and submit the preliminary plans for Stage II. All plans circulated for review must be marked "Preliminary" and "Stage II (30%) Review". The Project Manager will advise the consultant of the number of sets to be submitted for review. The consultant shall assemble the 11" X 17" drawings, have the prints made, and distribute the prints as directed by the Project Manager.

C. Stage III Documents (60% Design Level)

The Stage III document development will substantiate that the design is progressing in accordance with the system criteria, and that adequate coordination is being provided between the various technical areas. Comments received from previous reviews are to be resolved and incorporated into the Stage III documents, where appropriate.

The Consultant shall also prepare and submit the draft copy of the special provisions for Stage III, including the ADOT Stored Specifications and any project requirements not adequately covered in the ADOT's Standard Specifications for Road and Bridge Construction and Stored Specifications. The special provisions will cover the general elements, such as cabinets, controllers, loops, CCTV cameras, cable types, and communications system. This package shall also include the preliminary cost estimates for the project. The programmed budget for the implementation of the project will be made available by the ADOT Project Manager at an early stage of the work. The consultant shall immediately advise the ADOT Project Manager, in writing, if there is any reason to believe the project cannot be constructed within the allocated budget. The consultant shall identify options to maintain the project within the programmed budget.

Documents are distributed for review to insure that all the comments from the 30% design level were resolved and incorporated. All the plans circulated for review must be marked "Preliminary" and "Stage III (60%) Review".

The Project Manager will advise the consultant of the number of sets to be submitted for review. The consultant shall assemble the 11" X 17" drawings, have the prints made, and distribute the prints as directed by the Project Manager.

D. Stage IV Documents (95% Design Level)

The Stage IV documents shall include all the construction details and notes. The plans and documents must be thoroughly reviewed and checked. Comments received from the previous reviews are to be resolved and incorporated into the Stage IV documents, where appropriate. In the Stage IV documents, all necessary information is shown in adequate detail to permit bidding, staking, and construction of the system.

This package shall also include special provisions, quantities, and cost estimates (combined and detailed) for the project.

All plans circulated for review must be marked "Preliminary" and "Stage IV (95%) Review". The Project Manager will advise the consultant of the

number of sets to be submitted for review. The consultant shall assemble the 11" X 17" drawings, have the prints made, and distribute the prints as directed by the Project Manager.

E. Final Plans (100% Complete)

The final PS&E will consist of finished construction plans, special provisions, bidding schedule, and combined and detailed cost estimates on ADOT-approved forms, as well as a recapitulation sheet. The comments from the Stage IV review are to be resolved and incorporated into the plans and documents, where appropriate.

Quantity estimates shall be taken from the plans and unit prices shall represent the most current market costs.

The PS&E shall be signed and sealed by a Professional Engineer, registered in the State of Arizona. The following additional criteria shall also be met:

1. All seals must be of good reproducible quality and all signatures in black.
2. All final plan sheets shall be printed on 24" X 36" vellum.
3. Plan sheets shall be black printing only, since other colors do not reproduce properly.
4. Paste-ups, tape or sticky-back are not permitted.
5. The use of pencil is not permitted on final drawings.
6. A CADD disk to ADOT Standards shall be submitted to the Project Manager within 5 days of PS&E submittal. See Appendix C for CADD requirements.

F. Review of Documents

The consultant shall have total responsibility for the accuracy and completeness of all documents and related design prepared under this contract and shall check all such material accordingly. The plans will be reviewed by ADOT for conformity with ADOT procedures and the terms of the contract. An ADOT review will not include detailed review or checking of design of major components and related details, or the accuracy with which such designs are depicted on the plans. The responsibility for accuracy and completeness of such items remains solely that of the consultant.

811. Contracts and Specifications (C&S) Process

The consultant shall, under the direction of ADOT, support the Contracts and Specifications (C&S) process after completion of the 100% submittal, as follows:

- A. Answer questions relative to the plans, quantities, and special provisions.
- B. Make any necessary corrections to the plans, special provisions, quantities, etc., as may be required.
- C. Prepare any addendum required to clarify the work included in the contract documents. Addenda may be required based on the project review by the assigned ADOT Resident Construction Engineer, questions developed in the prebid conference, or conditions discovered by the bidders during the bid period.

- D. The consultant shall, prior to the prebid conference, be prepared to walk the project with the ADOT Resident Construction Engineer to discuss the plans and details.

812. Prebid Services

- A. ADOT will use a competitive bidding process for selection of the construction contractor. A prebid conference will be held prior to submission of bids, during which the consultant shall present a detailed overview of the project and will assist the Department in answering the potential bidders' questions.
- B. The consultant shall, prior to the prebid conference, be prepared to review the completed bid package with the ADOT Resident Construction Engineer, the Project Manager, and other appropriate ADOT personnel.

813. Pre-Award Services

The consultant shall assist ADOT in bid evaluation, answer questions for the Contracts and Specifications, and resolve acceptability.

814. Post-Design (Construction Support) Services

ADOT will coordinate all the post-design (construction support) services and will act as the principal initial contact for post-design questions. The consultant shall be responsible for the post-design services, if determined necessary by ADOT, will include but not limited to:

- A. The consultant shall be available to respond to the questions that may arise in the field relative to the plans, details, or special provisions during construction.
- B. The consultant shall review and approve the shop drawings, erection procedure plans and formwork details, review proposals for substitutions or "approved alternates", develop change-orders, and provide other engineering services required to facilitate construction of the project.
- C. The consultant shall appoint a responsible member of the firm, who is closely familiar with the project, to be the contact person for all the post-design services. The person should be continually available during the course of the construction for reviewing and updating the design plans, if required.
- D. The consultant shall make every reasonable effort to process any material presented for review in a prompt manner as not to incur contractor delay claims against ADOT.
- E. The consultant's compensation for post-design services shall be accommodated at a later date and shall be at an hourly rate, inclusive of overhead and profit and exclusive of travel and expense.

815. Check and Approval of Documents

The consultant shall, throughout the design period, fully check all the plans, specifications, and estimates for accuracy and completeness. The consultant shall be required to seal, with appropriate professional Arizona stamp, all of the engineering documents.

816. Partnering and Pre-Construction Conferences

The consultant shall participate in a one-day partnering conference and a one-day pre-construction conference.

900. MATERIALS FURNISHED BY ADOT

901. Documents

The ADOT Project Manager will assist the consultant to obtain the required reference documents, standards, as-built plans, and other publications and information, as available.

902. Traffic data

Unless otherwise stated in the Task-Order Scope of Work, ADOT will assist the consultant to obtain the required traffic data.

903. Base Sheets

ADOT will assist the consultant to obtain the base sheets for the completion of the project plans, if available.

1000. WORK PERFORMED BY ADOT

1001. Right-of-Way Coordination

The consultant shall submit to the ADOT Project Manager, in writing, the requirements for all the rights-of-way and easements. ADOT will acquire all the required rights-of-way and easements based on the documents provided by the consultant and obtain the right-of-way clearance letter for the project.

1002. Utility and Railroad Coordination

The consultant shall submit a document to the ADOT Project Manager, indicating the time that all utility (and railroad, if any) conflicts will be resolved and that the project may be cleared for bid advertisement with respect to utilities and railroad. The document will cover all affected public, private, and municipal utilities. The ADOT Project Manager will then request and obtain the required clearance letter from the ADOT Utility and Railroad (U&RR).

1003. Environmental Coordination

The ADOT Environmental Planning Section (EPS) will be responsible for the preparation of any environmental documentation required for this project. The consultant shall be required to provide all the necessary technical information on the project to EPS, as requested. The Project Manager will then request and obtain the required clearance letter from the ADOT EPS.

1100. CONTRACT ADMINISTRATION

1101. General

- A. The assignment of the on-call consultants to individual projects will generally be made on a rotational basis; however, ADOT may select a consultant out of sequence due to workload or other considerations. The consultant will be

selected for a particular project by submitting a proposal upon request. The request will be reviewed and a letter of authorization to proceed will be given if the proposal is acceptable to the Department.

- B. The consultant shall abide by the conditions of the Scope of Work. The consultant shall insure that all the products submitted to ADOT are clearly understandable, legible, and correct, both technically and grammatically (spelling, punctuation, capitalization, etc.).
- C. The consultant shall meet initially with the ADOT Project Manager. At this meeting, the Project Manager will provide the consultant with preliminary project information and discuss the items concerning the project.
- D. The consultant shall obtain all the pertinent background information for each assignment. Communications with agencies outside of ADOT and with other ADOT sections shall be coordinated through the ADOT Project Manager.
- E. The consultant shall keep the Project Manager informed of all the pertinent decisions related to the project. The consultant shall not perform any work outside of the Scope of Work without securing the approval of the ADOT Project Manager.
- F. The consultant shall follow the ADOT's issue-resolution process for all matters involving the disagreements between the consultant and the ADOT Project Manager or any other ADOT staff involved with the project.

1102. Arizona Department of Transportation

The ADOT Project Manager will:

- A. Conduct ongoing reviews of the consultant's progress in performing the work and furnishing technical information and comments in a timely manner.
- B. Review and approve all contractual payments and changes.
- C. Review and evaluate the consultant's request for extension of time and supplemental agreements.
- D. Direct design consensus status and team-building meetings with all appropriate partners during the project development period.
- E. Review all the correspondence with public agencies prior to the consultant's mailing of any correspondence.
- F. Acquire the necessary rights-of-way, including easements.
- G. Monitor the consultant's costs, staff, and progress.
- H. Be responsible for obtaining the final clearance letters for the utility and railroad, environmental, and right-of-way
- I. Coordinate the distribution of public information.
- J. Provide a focal-point contact for all questions, requests, and submittals.

1103. Consultant

The Consultant shall:

- A. Work with and report directly to the ADOT Project Manager.
- B. Establish, furnish, and maintain suitable office facilities for the duration of the contract in the location specified by the consultant's technical proposal.
- C. Maintain an adequate staff of qualified support personnel to perform the work necessary to complete the project.
- D. Establish and maintain contract administration procedures, which will include supplemental agreements, time-extensions, and subcontracts.
- E. Establish internal accounting methods and procedures for documenting and monitoring project costs.

1104. Project Control

The consultant shall report the progress and provide data to the ADOT Project Manager for the purpose of monitoring the costs and staff. The data shall generally include the following information:

- A. Detailed project schedule and critical path work from initial plans as work progresses.
- B. Progress against schedule for each identified work item.
- C. Forecast the completion dates from current progress.
- D. Rescheduled work in any area, which is out of the required sequence.
- E. Forecast the future conflicts in any area.
- F. Provide the estimates of the required time, staff-hours, and cost based upon the current expenditures versus scheduled.
- G. Provide the capability of random inquiry concerning the status of any work element in terms of schedule, staff, and cost.

1105. Work Progress

The consultant shall meet with ADOT on a regular basis and provide written progress reports, when requested, describing the work performed on each task. The ADOT Project Manager will establish the dates and times of these meetings. Two working days prior to each progress meeting, the consultant shall provide ADOT a draft copy of the progress report and a typewritten agenda for the meeting. The consultant shall prepare typewritten meeting minutes and submit those to ADOT within five (5) working days of the meeting. The minutes shall indicate the issues discussed and the resolution or actions required resolving any issues.

1106. Subcontract Services

Due to the nature and scope of the required services, it may be desirable for the consultant to subcontract portions of the work; however, the subcontracting firms must be approved in writing prior to initiation of any work. The volume of work performed by the subcontractors shall not exceed forty-nine percent (49%) of the total contract value.

1107. Project-Related Correspondence

The consultant shall furnish to ADOT written documentation of communications between the consultant and any party pertaining specifically to this project within one week of the communications. The consultant is responsible for recording and distributing to the participants and key project personnel the minutes of all meetings pertaining to this project within one (1) week of the meeting.

1108. Technical Review Process

Technical review should be distinguished from checking. Checking is for the verification of the accuracy of the documents; technical review is for the verification of the overall design concept of the project. As a minimum, technical review should accomplish the following:

- A. Determine the adequacy of the design process to achieve the desired goals.
- B. Determine if all viable alternatives have been considered.
- C. Determine the practicality of the design concept.
- D. Determine if legal and physical restraints were considered and observed.
- E. Determine if the design theory, concepts, and project layout are logical.
- F. Determine applicability of computer program and equipment used.
- G. Determine if the technical specifications are sufficiently comprehensive.
- H. Determine the constructibility of the selected design.

1200. CONSULTANT PERSONNEL

The consultant's work shall be performed and directed by the key personnel identified in the proposal by the consultant. Any changes in the designated key personnel or the consultant's Project Manager in charge of the work, as indicated in the consultant's proposal, shall be subject to review and approval by ADOT. The consultant's staff assigned to perform any task shall be qualified individuals with closely related experience in that field.

1300. SITE VISIT

The consultant shall arrange for a visit to the project site, when necessary, with ADOT and other pertinent parties. The visit should be held shortly after the consultant is authorized to proceed. The purpose of this site visit is to acquaint the consultant to the project needs and to facilitate the design process. Within seven (7) calendar days of the site visit, the consultant shall issue a brief written report to the ADOT Project Manager.

1400. ACCEPTABILITY OF THE WORK

The plans, designs, calculations, reports, and other documents furnished under each Scope of Work shall conform to the industry standards quality, as acceptable to ADOT. The criteria for acceptance shall be a product of neat appearance, well organized, accurate, complete, and technically and grammatically correct.

1500. DESIGN DOCUMENTATION

- 1501. The consultant shall submit any design notes, sketches, worksheets, and computations to document the design conclusions reached during the development of the project documents to ADOT for review.
- 1502. The design notes and computations shall be recorded on 8-1/2"x 11" computation sheets, appropriately titled, numbered, dated, indexed, and signed by the designer and checker. Computer output forms and other oversized sheets shall be folded or legibly reduced to 8-1/2"x 11" size. The data shall be bound in a hardback folder for submission to ADOT.
- 1503. At the project completion, a final set of the design notes and computations (e.g., structural design calculations), sealed by a Professional Engineer, registered in the State of Arizona, shall be submitted to ADOT with the set of plans and tracings.
- 1504. The use of Computer-Aided Drafting and Design (CADD) to ADOT standards will be required for all projects. The CADD software to be used shall be ADOT standard, running on any computer platform that is supported by Intergraph.
- 1505. All drawings shall conform to the applicable ADOT drafting and CADD standards. At the completion of the project, all of the pertinent CADD files shall be delivered to ADOT in electronic format.
- 1506. Information shall also be made to download into OSP database or any other software that ADOT uses to track and monitor ITS facilities.

1600. REVIEWS AND SUBMITTALS

- 1601. Review and coordination of the consultant's work by ADOT will continue through the project development process. The consultant may continue the design efforts while design submittals are being reviewed by ADOT. Doing so, however, in no way relieves the consultant of the responsibility to incorporate review comments into the design, nor does it entitle the consultant to any additional design fees as a result of making review comment changes due to non-conformance to standards.
- 1602. Submittals for review shall be made when PS&E package has been developed to the following levels of completion:
 - A. Stage I Document Project assessment (10% Design level)
 - B. Stage II Documents (30% Design Level)
 - C. Stage III Documents (60% Design Level)

D. Stage IV Documents (95% Design Level)

E. Final PS&E (100% Complete)

The Task-Order Scope of Work will identify what elements shall be developed and submitted for each of the above stages. A meeting may also be held following submittal of each package.

In addition to the plans and special provisions listed above, all the documents and reports prepared by the consultant shall be submitted for review and evaluation. The consultant shall also incorporate all applicable comments into those documents before final submittal.

1603. Copies of the review submittals and finalized documents shall be distributed by the consultant in accordance with the distribution list in the Task-Order Scope of Work.

**ARIZONA DEPARTMENT OF TRANSPORTATION
Engineering Consultants Section**

Sheet 1 of 1

		Progresss _____ Final _____	Payment Report	
Report No.	FA Non FA XX	Exp Budget Fund Code Acct Code	Contract No.	
TRACS NO.	VARIOUS		Month Ending	
PROJECT NO.	VARIOUS			
Name of Project:				
Name of Consultant				
Date Started:		Date Accepted Estimated Completion Date:	% Billed	% Complete
SUMMARY OF WORK FOR WHICH PAYMENT IS REQUESTED				
	Description	Total Contract	Previous Accumulative	Current Accumulative
	Original Contract	0.00		
Task Order	CM# TRACS #			
TOTAL CONTRACT AMOUNT		0.00		
Submitted By _____			Date _____	Total To Date
Consulting Engineer				
Approved _____			Date _____	Total Previous Report
ADOT Project Manager				
Approved _____			Date _____	Current Report
Engineering Consultants Section				

APPENDIX B

PHASING AND EVALUATION SCHEDULE FOR MISCELLANEOUS PROJECTS

For on-call, supplemental services, location studies, research, etc., the period of evaluation of the consultant is left to the discretion of the Project Manager. Where projects are numerous and of short duration, the Project Manager may choose to evaluate the consultant every six months; where the consultant will be working on a small number of longer duration projects, the Project Manager may choose to evaluate the consultant after each project is completed.

It is recommended that the consultant is evaluated every six months and that the letter of transmittal to the consultant from the Project Manager be similar in content to the attached sample transmittal.

RECOMMENDED EVALUATION FILING DATES

Periodic Evaluation *	Left to the discretion of the Project Manager.
Contract Renewal *	Must be submitted with the Project Manager's request to extend the contract.
Contract Completion *	After contract is complete.

* Note: Indicate on the form provided the type of evaluation.

EVALUATION MEASUREMENTS/COMMENTS

The following measurement standards for performance evaluation factors may be used:

<p><u>"5"</u> rating is for outstanding performance which exceeds the Scope of Services. Examples are design and/or construction cost savings, substantial time savings, unprecedented level of community involvement, error free plan submittals, etc. <u>The award of this rating will be infrequent</u>, as Consultants are selected on their qualifications and are expected to produce the best product possible.</p> <p><u>"3"</u> rating is for performance which has met the Department's expectations based on the Scope of Services. Examples are within scope, budget, and on time; acceptable communication and coordination; minimal changes to plan submittals, etc.</p> <p><u>"1"</u> rating is for unsatisfactory performance which has not met the Department's expectations based on the Scope of Services. Examples are not meeting schedules, exceeding the design and/or construction budgets, major revisions required on plan submittals, poor communication and coordination, etc.</p>
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NOTE: Additional comments are required in the space provided for the ratings.



Arizona Department of Transportation

STATE ENGINEER'S OFFICE

MEMORANDUM**To:** ITD Employees**Date:** June 23, 2005**From:** Sam Maroufkhani, Acting State Engineer

A handwritten signature in dark ink, appearing to read "S. Maroufkhani".

Subject: CADD Electronic Files Archiving Process

Effective July 1, 2005, all ADOT Project Managers will implement the ADOT CADD Files Archiving Process.

The attached document titled "Computer-Aided Design and Drafting (CADD) Standards For All Project Related Deliverables" outlines what files are to be provided and how the files are to be submitted for archiving for each Design Technical Unit. At this time the ADOT Archiving Team is focusing upon the method for archiving the "As-Bid" electronic files. After this process is implemented, the Team will focus on the "As-Built" process. The CADD Archiving Process will be the standard method for both ADOT staff-designed projects as well as consultant-designed projects.

The primary Project Manager is central to a project. The Project Manager role is crucial to ensuring that all Design Technical Units' Project data is archived at the same time. (See attached ADOT CADD Files Archiving Process Flow Chart.)

A new ITD policy regarding the ADOT CADD Files Archiving Process is in process. Upon completion of the policy, you will be advised when the policy is available on the intranet website.

Your cooperation is appreciated to implement this process that will assure ADOT has ready access to all Electronic CADD files they have commissioned.

ADOT CADD Files Archiving Process*

Task Level Map

DEFINITIONS:

ADOT Standards - ADOT Design Software (MicroStation, et al) Resource files, Design Criteria and Drafting Guidelines.

C&S - Contracts & Specification Services.

CAE - The Computer Aided Engineering Archive Liaison.

Final Archive - The Final Archive Folder is on \\e980ls04\Archive.

FTP Site** - File Transfer Protocol (FTP). An Electronic site for Design Consultants to use to transfer Electronic Files through ADOT's firewall.

PM - The ADOT Project Manager responsible for all project related activities.

SWRD - Statewide Record Drawings Liaison.

Temporary Archive Folder** - An Electronic site for ADOT Design Groups Electronic Files (\\e980ls04\MMSV7).

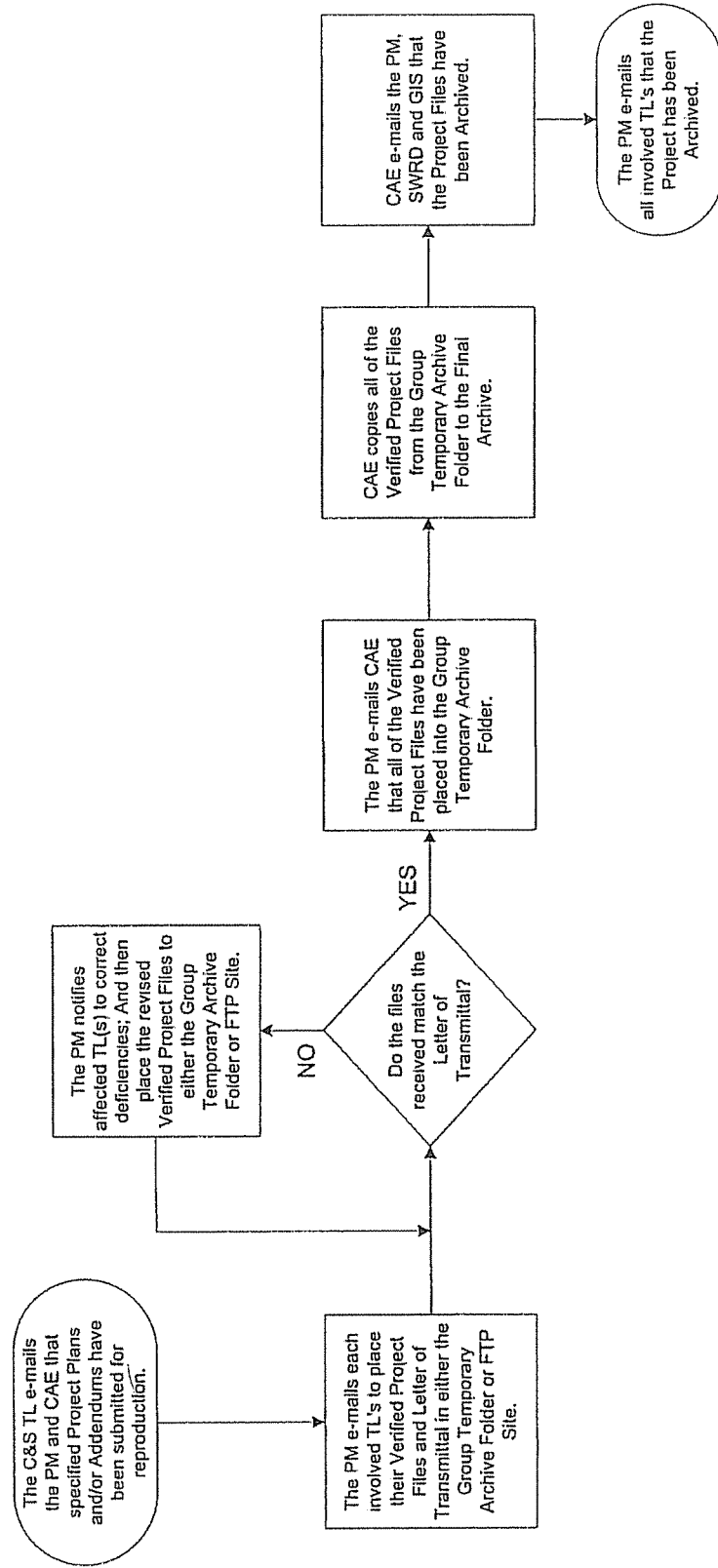
TL - The Technical Leader of individual Design Units (ADOT or Consultant), responsible to assure that all CADD Files have been completed in ADOT

Standard File Format.

Verified - The PM confirms with the TL that all related files & file-formats have been received, and meet ADOT Standard file formats. It will not be

necessary for the PM to check the information confirmed within the files.

** If these Electronic Folders are not used, the Design Units (ADOT or Consultant) have the option to submit two (2) copies of their Electronic Files on Compact Discs to be delivered to the PM.



* Archive Process Excludes Materials Group and Engineering Surveys

Computer-Aided Design and Drafting (CADD) Standards for all Project related Deliverables.

ADOT shall retain all rights and ownership of all Electronic Files and Hardcopy Deliverables throughout the Design Phases.

General Specifications:

All drawings to be archived shall conform to ADOT drafting and CADD standards. The current ADOT approved version of Bentley's MicroStation software will be used. All graphic files shall be provided in MicroStation native design file format (.dgn), and contain data in vector format only. Digital Terrain Model (.dtm) files shall be produced with Bentley's InRoads/Site/Survey Select Cad compatible file formats. Raster data shall not be accepted unless otherwise stated by ADOT. Use of non-MicroStation vector format and subsequent translation of graphic files to the .dgn format shall not be acceptable. No zipped files shall be accepted. Reference files are not to be copied into the plan sheets master file. All electronic "design sheets" will be delivered in a typical "Plan View" (dependant upon sheet contents) in view 1. ADOT cells are not to be modified unless approved by ADOT.

All final Consultant project Electronic CADD data files may be delivered through a File Transfer Protocol (FTP) Site. Alternatively, two (2) copies of the electronic files shall be submitted on CD-Rom (multiple CD's shall be allowed). All final project documentation, electronic files (.dgn, ASCII, .alg, .dtm, project wide reference files, etc.) and hard copy, shall be packaged separately, suitably labeled and delivered to the assigned ADOT primary Project Manager, and/or to the Technical Leader as identified below.

All deliverables shall contain an electronic Index of files and a letter of transmittal to the designated areas and all CD's must be labeled with the information stated below:

- **Identification Label For CD and Case:**
Prepared By:
Federal Project Number:
Route:
Milepost (Beginning/Ending):
Prefix (Rt, Co, MP) and TRACS Number:
Project Name:
Type of Files:
Creation Date:
Disc (#) of (total #)

In addition to the requirements stated above in the General Specifications, all designers of ADOT projects shall provide the following information requested by the individual areas. If unclear about items needed for your project, please contact the Project Manager.

Bridge:

Identification Label

1. Structure Number (4 digit number)
2. Structure Name (Wildcat Wash Bridge)
3. Type of work category:
 - a) Major Structure – New Bridge
 - b) Bridge Replacement
 - c) Minor Structure
 - d) Deck Rehabilitation
 - e) Hinge, Deck or Joint Repair
 - f) Barrier Replacement
 - g) Bridge Widening
 - h) Scour Protection
 - i) Seismic Retrofit

Materials:

(Geotech)

In addition to the CADD requirements stated in the General Specifications, all Consultants of ADOT Geotech projects shall provide the following information to the Project Engineer for ADOT Geotech Section:

1. One (1) Electronic Copy of the final Geotech Design sheets submitted on CD-Rom.
2. One (1) half-size (11"x17") print of the Geotech sealed and signed final design sheets.

Roadway Engineering:

See General Specifications.

Right of Way:

All R/W plans are to conform to current R/W Plans Standards and Manual.

Final Task Submittal FINAL R/W PLANS

When all comments have been addressed, the designers of ADOT projects shall submit the following:

1. Beginning and Ending Mileposts in tenths of a mile
2. Revised Calculation Book sheets and Point ID sheets, if necessary.
3. An ASCII coordinate electronic file in the following format: Point Number, Northing, Easting, and Description using commas as delimiters. The designers of ADOT projects shall ensure that this file is free of extraneous text such as page numbers, headers, batch commands, and the like. This file shall be such that it can be imported into a COGO program without reformatting by ADOT Right of Way Plans Section. Only numeric numbers shall be accepted.
4. One (1) half-size print of the Final Right of Way Plans set.
5. Full-size set of Sealed and Signed Mylar's trimmed to 22" x 34"

Traffic Engineering:

Upon Final Design Approval for any and all work that involves Traffic Engineering/Design, the Traffic Engineering Group requires that the following CADD related deliverables be submitted to the Primary Project Manager as indicated in the General Specifications. In addition, a copy of the Letter of Transmittal indicating all Traffic related deliverables have been submitted to ADOT shall be forwarded to the Traffic Engineering Project Manager for approval.

1. All SignCad files shall be submitted in ADOT's current version of SignCad (.SGN).
2. All Design CADD files associated with Traffic Design, including Traffic Signals, Signing, Pavement Marking, Traffic Control, Pre-Design, HES Projects, and Permit Designs, shall be submitted in ADOT's current version of MicroStation 2D format (.DGN)(2D).

Engineering Surveys:

(Location Surveys and Photogrammetry)

In addition to the CADD requirements stated in the General Specifications, all designers of ADOT projects shall provide the following information to the Engineering Survey Section:

1. Ground Adjustment Factor (G.A.F.):
2. Contour Interval (C.I.):
3. Project Scale:
4. Horizontal and Vertical Datums:
5. Arizona Zone:
6. Hard copy of reports including any plots

Based on the Scope of Work, select the items to be delivered:

1. Hard Copies shall consist of the following:
 - a) Field notes
 - b) Sketches
 - c) Transit and Level books
 - d) Plots
 - e) Reports
2. (.dgn) file containing graphical representation of the project (i.e. Planimetrics and contours).
3. (.3d) file containing graphical representation (i.e. breaklines and random points) to produce the DTM.
4. (.dtm) containing Engineering Surveys approved features that make up a correct surface representation.
5. (.alg) file containing the project alignments. (.rpt) file including curve data from the alignment.
6. ASCII (.csv) files shall contain the following:
 - a) File Header information:
 - i. Project GAF
 - ii. Project Datums
 - iii. Arizona Zone
 - iv. Basis of Alignment
 - v. Basis of Stationing
 - vi. Basis of Horizontal Control
 - vii. Basis of Elevation
 - viii. Basis of Bearing
 - a) All Project Control
 - b) Section Corners
 - c) R/W Monumentation
 - d) Structures
 - e) Edge of pavement
 - f) Centerline and driving stripes
 - g) Other features as requested

Note: Two (.csv) files shall be submitted, one containing the RAW survey data and another containing the Edited survey data.

1. All Film Negatives used to map a project
2. Scanned Images and/or Diapositives used to map project
3. Aerotriangulation files used to control photography
4. Orthophotos produced for the mapping project
5. Record of Survey: When requested, Record of Survey shall be in electronic (.dgn / .pdf) format with a stamped original.
6. Pictures: Upon Request pictures shall be taken for all structures including end of pipes, and headwalls, caps, and any un-natural terrain feature in a (.jpg or .bmp) file format (check scope of work).

If unclear about items needed for your project, please contact the Engineering Survey Section.

ADOT PROJECT MANAGER:

All survey and photogrammetry projects shall be submitted to the Engineering Survey Section through the ADOT and Consultant Project Manager, for verification of deliverables and archiving purposes. A notification of findings shall be sent to the Project Manager after completion of project review.

SECTION VIII

ADVANCE AGREEMENT CHECKLIST

ARIZONA DEPARTMENT OF TRANSPORTATION

ENGINEERING CONSULTANTS SECTION

ADVANCE AGREEMENT CHECK LIST

(See FAR 31.109)

1. Direct Labor

Direct labor will be billed at actual costs, as defined in FAR 31.001, unless a specific classification or individual's billing rate is capped. However, for partners, sole proprietors and Limited Liability Companies (LLCs) where owners may not be paid an hourly wage or salary, direct labor will be billed at rates agreed to by ADOT. (Also see **Compensation for Personal Services.**)

Only the pay rates of those employees who will likely be expected to be directly involved on the Project stated in the Contract can be used in developing cost proposal rates.

2. Home Office Allocations or Similar Allocated Costs

FAR 31.109(h)(14) states, "General and administrative costs (e.g., corporate, division, or branch allocations) attributable to the general management, supervision, and conduct of the contractor's business as a whole." These costs may represent a significant portion of indirect (Overhead) costs.

All Cost Principles addressed in the Contract Cost Allowability Guidelines and Policies ("CCAGP") must be followed by a Consultant/Subconsultant's home office, division or other related entity that allocates costs to the Consultant/Subconsultant (see the CCAGP A.5. Allocability of Costs). These costs should be identified and agreed to in advance as to the amounts considered reasonable and allocable to ADOT contracts.

3. Overhead Rates by Type of Engineering Discipline or Specialty

Firms qualified to provide more than one engineering discipline or specialty must be able to substantiate separate overhead rates for each of the following disciplines:

- Construction Administration (CEI)
- Design
- Geotech
- Supplemental Services

4. Compensation for Personal Services

See CCAGP B.31.205-6 Compensation for Personal Services.

Compensation for personal services is normally the most significant element of indirect cost. The components of compensation for personal services should be identified and the amounts to be considered reasonable and allocable to ADOT contracts agreed to in advance.

In particular, the following elements of Compensation for Personal Services, if applicable, should be agreed to in advance:

- Both the reasonableness and allocability of compensation paid to partners, sole proprietors, or owners and family members of same, along with highly compensated employees.
- Allowability of bonuses. Under above reference, see 2. Bonuses and incentive compensation.

5. Cost of Money

If this item is requested, it must be properly proposed as a separate line item in the Derivation of Costs Proposal, and documented in accordance with 31.205-10. Also see FAR 31.201-1.

6. Bid and Proposal Costs (see FAR 31.205-18) and Selling/Marketing Costs (see FAR 31.205-38)

Bid and proposal costs and selling/marketing costs will be looked at carefully in the preaward review. Any unreasonable and/or unallocable costs being claimed will be disallowed. Adequate documentation will be expected for such claimed costs. Unallowable portions will be expected to be properly identified.

7. Other Direct Costs

It will be expected that Other Direct Costs (any expense/cost other than Direct Labor and Subconsultants) be included in the Overhead cost pool. If a Consultant/Subconsultant proposes Other Direct Costs, it will need to obtain prior approval of its accounting methods by ADOT's Office of Audit & Analysis—External Audit Team before it can include such costs in its Derivation of Costs Proposal submitted to ADOT's Engineering Consultants Section.

7. Other Direct Costs, continued

The list of incidental costs that follow should not be considered to be "all-inclusive". However, the items noted below are specific costs ADOT has identified as being onerous to deal with as Other Direct Costs. Most Consultants/Subconsultants already include such costs in Overhead cost pools.

- Audio/Video equipment and supplies, including VCRs and video cameras
- Cell phones
- Copy machines
- Densometer
- FAX
- Internet/electronic mail
- Mileage for company vehicles
- Office space considered to be "extra". (Exception is for Construction Administration field office.)
- Postage and/or Courier
- Survey supplies
- Telephone calls--both local and long distant

Additional points to consider:

- If a Consultant/Subconsultant does not have separate cost pools (for example CADD and Reproduction Costs), ADOT believes it will be very difficult to adequately substantiate such costs.
- Be aware that if the costs of specific services normally provided by a Consultant/ Subconsultant are included in its Overhead Cost Pool, then any unexpected costs that may be incurred to provide those same services must be charged to an Overhead cost account. Any questions regarding this matter should be directed by ADOT's Office of Audit & Analysis—External Audit Team.

8. Incidental Costs Which Should Normally Be Charged Directly to the Contract

- Lease/rental of vehicles or other specialty equipment. (This cost should be substantiated by evidence of appropriate bidding including support for the bid accepted.)
- Mobilization of equipment.
- Travel and Lodging, including per diem, following ADOT's Travel Authorization Policy.
- Special reproduction costs provided by outside vendors

SECTION IX
BOILER PLATE CONTRACT

Contract No: 07-34
TRACS No: Various
Project No: Various

A.G. Contract No: KR94-1408ALS

CONSULTANT CONTRACT

This CONTRACT is made and entered into on _____, 20____ by and between the State of Arizona, Arizona Department of Transportation, Intermodal Transportation Division, acting by and through the Director, hereinafter called STATE, and

(Consultants Name and Address Inserted Here)

hereinafter called the CONSULTANT.

The Description and Location of the CONTRACT and related project(s) are as follows:

Description:

Statewide On-Call Engineering Services for
Intelligent Transportation Systems (ITS)

Location:

Various Locations throughout the State of Arizona

RECITALS

1. The STATE desires that professional engineering services for Intelligent Transportation Systems (ITS) on an on-call basis be provided for the above locations. The trained personnel needed for the CONTRACT and related project(s) are not currently available within its own organization.
2. The CONSULTANT firm with its principals and employees is considered to be qualified and otherwise capable of performing the work required by this contract in the time allotted.
3. Therefore, pursuant to Arizona Revised Statutes, Section 28-1803(5) it is deemed to be in the public interest to enter into this contract.

AGREEMENT

Therefore, in consideration of these premises and of the mutual clauses and agreements herein contained, and the faithful performance thereof, the CONSULTANT and the STATE contract and agree:

2.01 SCOPE OF WORK

The CONSULTANT shall perform engineering services for the satisfactory completion of the CONTRACT and related project(s) as detailed and described in the following Scope of Work dated _____, 20____ which is considered to be a part of this CONTRACT.

3.01 CONTRACT SCHEDULE AND COMPLETION DATE

Work on the CONTRACT and related project(s) is scheduled to commence on _____. Work is to be completed within _____ calendar days from notice to proceed for an estimated completion date of _____, 20____. The STATE assumes no liability for work performed or costs incurred prior to the beginning date or subsequent to the CONTRACT completion date. The STATE retains the option of renewal of two additional one year extensions.

3.02 CONSULTANTS COMPENSATION - LUMP SUM BY TASK ORDER

1. The method of payment for this CONTRACT is a Lump Sum Cost per Task Order. Costs for each Task Order will be derived from the rates as shown in the Contract.
2. Total compensation for the work performed shall not exceed the sum of \$_____ plus approved adjustments. The Overhead rate, Direct Expenses and Fee are subject to change pending Pre-Negotiation Audit Review. Initially, the contract will be given a Negotiated Provisional overhead rate of _____%. Upon receipt of the Pre-Negotiation Audit Review, a contract modification will be executed to establish the Negotiated overhead rate for the contract. A re-determination adjustment in the total amount paid or to be paid on all payment reports shall be made to reflect the established Negotiated overhead rate, and resulting additional payments, refunds, or credits shall be made promptly. For following years, if overhead rates have been provided to and approved by Audit and Analysis, a contract modification will be executed to revise the Negotiated overhead rate at each renewal year(s) of the contract. The Task Order Notice to Proceed date will be the effective date for all re-determination of costs.

OR

2. Total compensation for the work performed shall not exceed the sum of \$_____ plus approved adjustments. The Negotiated Overhead rate of _____ has been established. For following years, if overhead rates have been provided to and approved by Audit and Analysis, a contract modification will be executed to revise the Negotiated overhead rate at each renewal year(s) of the contract. The Task Order Notice to Proceed date will be the effective date for all re-determination.

OR

2. Total compensation for the work performed shall not exceed the sum of \$0.00 plus approved adjustments. The Unit Prices of Work, Direct Expenses and Fee are subject to change pending Pre-Negotiation Audit Review. Initially, the contract will be given Negotiated Provisional Unit Prices of Work. Upon receipt of the Pre-Negotiation Audit Review, a contract modification will be executed to establish the Negotiated Unit Prices of Work for the contract. A re-determination adjustment in the total amount paid or to be paid on all payment reports shall be made to reflect the established Negotiated Unit Prices of Work, and resulting additional payments, refunds, or credits shall be made promptly. For following years, if Unit Prices of Work have been provided to and approved by Audit and Analysis, a contract modification will be executed to revise the Negotiated Unit Prices of Work at each renewal year(s) of the contract. The Task Order Notice to Proceed date will be the effective date for all re-determination of costs.
3. Costs are to be identified separately for each Task Order. Costs for each Task Order must not exceed the amounts budgeted during the contract time frame without prior written approval of the STATE.
4. The CONSULTANT is required to submit a Monthly Progress Report in a format furnished by the STATE showing the status of the work and the degree of completion thereof.
5. The STATE shall not withhold retention on progress payments. However, if satisfactory progress has not been made, the STATE may first retain a maximum of

10% of the current and subsequent billings, or secondly, the STATE may refuse to make full progress payment(s) of such sums which are considered necessary.

6. When all work is delivered, accepted and approved as complete by the STATE, the ADOT Office of Audit and Analysis may prepare a report showing allowable costs incurred. Preparation of this report may require an audit examination of the CONSULTANT'S records. This may also include an examination of subconsultants or subcontractors records.
7. Final payment shall be made as soon as possible after 60 days from the date of acceptance of the audit findings, if applicable, by the STATE and the CONSULTANT.
8. In the event the STATE requires substantial changes in the scope, character or complexity of the work on the CONTRACT, the total compensation as well the fixed fee portion may be re-evaluated and adjusted to a greater or lesser amount by mutual agreement between the CONSULTANT and the STATE.
9. In the event this CONTRACT is terminated by the STATE as herein provided, the CONSULTANT may be paid all the allowable costs incurred, including mobilization and demobilization expense, plus that portion of the fixed fee earned to date of termination as determined by the STATE. Mobilization and demobilization expenses shall include only reasonable costs of marshalling personnel (and equipment if specifically provided for in the contract) for performing this work and of terminating employment of such personnel. No costs will be allowable in connection with termination of employment if incurred later than fifteen (15) days after the date of termination. Costs will be determined as provided in the Federal Acquisition Regulations and may be verified by an audit.

The CONSULTANT shall submit invoices on a regularly monthly basis in accordance with a timetable agreed to in contract negotiations. Invoices should be sent directly to ADOT Project Manager or Project Monitor.

The CONSULTANT will submit invoices for work performed by their Sub-consultants even though the prime CONSULTANT may not have performed working during the preceding month.

On or before the seventh day after the STATE makes a progress payment to the CONSULTANT, the CONSULTANT shall pay the Sub-consultants for the work performed to the extent of each Sub-consultant's contractual interest in the progress payment.

4.02 CONTRACT MODIFICATIONS

1. Contract modifications, defining and limiting the terms of the contract and compensation, must be approved by the STATE, and shall be submitted in the form and format provided by the STATE. The CONSULTANT will be compensated only with prior written authorization by the STATE. Any administrative/technical costs associated with the preparation of said modifications are solely the responsibility of the CONSULTANT.

- a. Supplemental Agreements

Significant changes in the scope, character, or complexity of the work may be negotiated if it is mutually agreed that such changes are desirable and necessary. Contract changes defining and limiting the work and compensation must be authorized by the STATE. Such supplemental agreement(s) shall be made in writing, and it is expressly understood and agreed that no claim for extra work performed or materials furnished shall be made by the CONSULTANT until authorization to proceed is granted, in writing, by the STATE.

b. Changes Orders

The STATE may at any time, by written order, and without notice to sureties, if any, make (or direct) changes within the general scope of this CONTRACT in the services to be performed.

4.03 DELAYS AND EXTENSIONS

The CONSULTANT agrees that no charges or claims for damages shall be made against the STATE for any delays or hindrances during the progress of this CONTRACT. Such delays or hindrances, if any, will be covered by an extension of time for such reasonable period as mutually agreed upon between the parties. It is agreed and understood, however, that permission to proceed with the CONTRACT after the established completion date, shall not be construed as a waiver by the STATE of any of its rights herein.

4.04 LATE SUBMITTAL OF INVOICE

Unless waived by the STATE, in writing, all invoices for work performed under this CONTRACT shall be submitted within 60 days from date of acceptance of the completed portion of the work performed.

4.05 PERFORMANCE EVALUATIONS

The CONSULTANT'S performance will be evaluated periodically in accordance with the schedule set forth in Attachment _____ of this CONTRACT.

4.06 GENERAL COMPLIANCE WITH LAWS

The CONSULTANT shall comply with all Federal and State laws, and local ordinances and regulations.

4.07 LITIGATION

In the event of litigation between the CONSULTANT and the STATE involving this CONTRACT, the laws and decisions of the State of Arizona shall apply and any such litigation shall be commenced and prosecuted in the appropriate court of competent jurisdiction of the Federal or State Court System within the geographical boundaries of the State of Arizona.

4.08 DISPUTE ESCALATION (Administrative Review)

A written dispute escalation process will be utilized to resolve questions of fact during the course of this CONTRACT. The final determination will be made by the STATE.

4.09 ARBITRATION

The parties agree to use arbitration, after exhausting applicable administrative reviews, to resolve disputes arising out of this agreement where the sole relief sought is monetary damages of \$100,000, or less, exclusive of interest and costs.

4.10 TERMINATION, POSTPONEMENT OR ABANDONMENT

1. The right is reserved by the STATE to terminate, indefinitely postpone work, or abandon the CONTRACT. The STATE may terminate this CONTRACT in any one of the following circumstances:
 - a. Failure of the CONSULTANT to perform the services as detailed herein and in any modifications to this CONTRACT.
 - b. Failure of the CONSULTANT to complete this CONTRACT within the time specified herein and in any modifications to this CONTRACT.
 - c. Failure of the CONSULTANT to comply with any of the terms of this CONTRACT.
 - d. When, for any reason, the STATE shall determine that such termination is in its best interest.
2. If the STATE contemplates termination under the provisions of paragraphs 1.a., 1.b., or 1.c. above, the CONSULTANT shall have five (5) days in which to cure such failure. In the event the CONSULTANT does not cure such failure, the STATE may terminate the CONTRACT without further consideration.
3. If, after Notice of Termination of this CONTRACT under the provisions of 1.a., 1.b. or 1.c. of this clause, it is determined that the CONSULTANT was not in violation or default, the Notice of Termination shall be deemed to have been issued under the terms of 1.d. of this clause.
4. Termination shall be effected by delivery to the CONSULTANT of a Notice of Termination specifying whether termination is for default of the CONSULTANT or for the convenience of the STATE, the extent to which performance of the CONTRACT is terminated, and the date upon which such termination becomes effective.
5. In the event of termination, the STATE shall be liable to the CONSULTANT only to the extent and as provided in SECTION 3.02 (CONSULTANTS'S COMPENSATION) of this CONTRACT.
6. In the event this CONTRACT is terminated, the STATE shall have the option of completing the CONTRACT, or entering into an agreement with another party for the completion of this CONTRACT according to the provisions and agreements herein.
7. If the STATE exercises this option, all costs and charges incurred by the STATE, together with the cost of completing the work under CONTRACT, will be deducted from any monies due or which may become due the CONSULTANT.

4.11 CANCELLATION OF STATE CONTRACTS

In accordance with Arizona Revised Statutes 38-511, the STATE may cancel any CONTRACT, without penalty or further obligation, made after the effective date of this section by the STATE or any of its departments or agencies if any person significantly involved in initiating, negotiating, securing, drafting or creating the CONTRACT on behalf of the STATE or any of its departments or agencies is, at any time while the CONTRACT or any extension of the CONTRACT is in effect, an employee of any other party to the CONTRACT in any capacity or a CONSULTANT to any other party of the CONTRACT with respect to the subject matter of the CONTRACT. The cancellation shall be effective when written notice from the STATE is received by all other parties to the CONTRACT unless the notice specifies a later time.

4.12 SUCCESSORS AND ASSIGNS

The CONSULTANT and all successors, executors, administrators and assigns of CONSULTANT'S interest in the work or the compensation herein provided shall be bound to the

STATE to the full legal extent to which the CONSULTANT is bound with respect to each of the terms and agreements of this CONTRACT.

4.13 CONTINUING OBLIGATION

The CONSULTANT agrees that if because of death or any other occurrence it becomes impossible for any principal or employee of the CONSULTANT to render the services required under this CONTRACT, neither the CONSULTANT nor the surviving principals shall be relieved of any obligation to render complete performance. However, in such event, the STATE may terminate this CONTRACT if it considers the death or incapacity of such principal or employee to be a loss of such magnitude as to affect the CONSULTANT'S ability to satisfactorily complete the performance of this CONTRACT.

4.14 INSURANCE

1. Without limiting any liabilities or any other obligations of the CONSULTANT, the CONSULTANT shall provide and maintain the minimum insurance coverage listed below. Coverage will be provided with forms and insurers acceptable to ADOT and maintained at a minimum until obligations under this CONTRACT are satisfied.
 - a. If applicable, Workmen's Compensation insurance to cover obligations imposed by Federal and State statutes having jurisdiction of its employees engaged in the performance of the services, and Employers' Liability insurance with a minimum limit of one hundred thousand dollars (\$100,000). Evidence of qualified self-insured status shall suffice for this section.
 - b. Architects' and Engineer's Professional Liability insurance in the amount of one million dollars (\$1,000,000) each claim, with said coverage to remain in force and effect for a minimum of one year past ADOT's acceptance of the CONTRACT.
 - c. Comprehensive General Liability insurance with a minimum combined single limit of one million dollars (\$1,000,000) each occurrence. The policy shall include coverage for bodily injury, broad form property damage (including completed operations), personal injury (including coverage for contractual and employee acts), blanket contractual, contractors protective, products and completed operations. Said policy shall contain a severability of interest clause.
 - d. Commercial Automobile Liability coverage with a combined single limit for bodily injury and property damage of not less than one million dollars (\$1,000,000) for all owned, leased, hired and non-owned vehicles. The State of Arizona and the Arizona Department of Transportation must be named as Additional Insureds and Certificate Holder on the policy.
 - e. Valuable Papers insurance in an amount sufficient to assure the restoration of any documents, memoranda, reports, or other similar data relating to the work of the CONSULTANT used in the completion of this CONTRACT.
 - f. The policy required by Sections c. and e. above shall be endorsed to include the STATE and ADOT, its agents and officials and employees as additional insureds and shall stipulate that the insurance afforded CONSULTANT shall be primary insurance and that any insurance carried by ADOT, its agents, officials or employees shall be excess and not contributory insurance to that provided by CONSULTANT.
 - g. A certificate of insurance acceptable to ADOT shall be issued to ADOT prior to commencement of the CONTRACT as evidence that policies providing the required coverages, conditions and limits are in full force and effect. Such certificate shall contain provisions that coverage afforded under the policies will

not be cancelled, terminated or materially altered until at least 30 days prior written notice has been given to ADOT.

4.15 INDEMNIFICATION - RESPONSIBILITY FOR CLAIMS AND LIABILITIES

1. For Professional Liability

To the fullest extent permitted by law, the CONSULTANT shall indemnify and hold harmless the State of Arizona, its agents, representatives and employees from and against liability for loss or damage resulting from the negligence of the CONSULTANT, or any subconsultant, or anyone directly or indirectly employed by the CONSULTANT or any subconsultant, but only to the extent the loss or damage results from the negligence of the CONSULTANT, or any subconsultant, or anyone directly or indirectly employed by the CONSULTANT or any subconsultant.

2. For Other than Professional Liability

To the fullest extent permitted by law, the CONSULTANT shall indemnify and hold harmless the State of Arizona, its agents, representatives and employees from and against liability for loss or damage resulting from the negligence of the CONSULTANT, or any subconsultant, or anyone directly or indirectly employed by the CONSULTANT or any subconsultant, but only to the extent the loss or damage results from the negligence of the CONSULTANT, or any subconsultant, or anyone directly or indirectly employed by the CONSULTANT or any subconsultant.

4.16 ANTITRUST VIOLATIONS

The CONSULTANT and the STATE recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact borne by Purchaser or ultimate user: in this case, the STATE. Therefore, CONSULTANT, acting as a Vendor, hereby assigns to the STATE any and all claims for such overcharges.

4.17 LIQUIDATED DAMAGES

(This is an optional provision applied, on an exception basis, primarily to contracts initiated and administered by the Arizona Transportation Research Center - Not applicable to this contract)

4.18 CONSULTANT'S RESPONSIBILITY

The CONSULTANT has total responsibility for the accuracy and correctness of plans and related data prepared under the terms of this CONTRACT, and shall check all such material accordingly for completeness, missing items, correct multipliers and consistency. The plans will be reviewed by ADOT for conformity with ADOT procedures and contract terms. Review by ADOT does not include detailed review or checking of design of major components and related details or the accuracy with which such designs are depicted on the plans.

4.19 ACCURACY OF WORK

Acceptance of the work by the STATE will not relieve the CONSULTANT of the responsibility for subsequent correction of any such errors and the clarification of any ambiguities. The CONSULTANT shall make all necessary revisions or corrections resulting from errors and omissions on the part of the CONSULTANT without additional compensation.

4.20 CONSULTANT'S ENDORSEMENT OF PLANS, ETC.

The CONSULTANT'S seal shall be endorsed and affixed to plans, reports and engineering data furnished under this CONTRACT.

4.21 PROFESSIONAL CONDUCT

The CONSULTANT shall comply with the provisions of A.C.R.R.4-30-301 (which is the official compilation of the Administrative Rules and Regulations for the State of Arizona), entitled Rules of Professional Conduct, Rules of the State Board of Technical Registration for Architects, Assayers, Engineers, Geologists, Landscape Architects and Land Surveyors, which are incorporated herein by reference and hereby made a part of the CONTRACT.

4.22 IMPROPER EXERCISE OF AUTHORITY

It is further understood and agreed that the CONSULTANT shall not in any way exercise any portion of the authority or powers of the State of Arizona, and shall not make a contract or commitment, or in any way represent itself as an agent of the State of Arizona beyond the scope of this CONTRACT unless expressly authorized, in writing, by the STATE.

4.23 CONFLICTS OF INTEREST

1. The CONSULTANT shall not engage the services on this CONTRACT of any present or former STATE employee who was involved as a decision maker in the selection or approval processes or who negotiated and/or approved billings or contract modifications for this CONTRACT.
2. The CONSULTANT agrees that no public or private interest exists and none shall be acquired directly or indirectly which would conflict in any manner with the performance of the CONTRACT.

4.24 ORGANIZATIONAL CONFLICTS OF INTEREST

1. No contract for the construction of a project shall be awarded to the firm that designed the project, or its subsidiaries, affiliates, the parent company or subconsultants, except with the written approval of the STATE.
2. The applicability of the above also applies to a Management and/or General Consultant or any of its subsidiaries, affiliates, the parent company or subconsultants that were involved in any aspect of the design process.

4.24.1 CONSULTANT - CONTRACTOR CONFLICTS OF INTEREST

The CONSULTANT agrees that it shall not perform services on this project for the contractor, sub-contractor or any supplier.

The CONSULTANT shall not negotiate, contract, or make any agreement with the contractor, subcontractor or any supplier with regard to any of the work under this project, or any services, equipment or facilities to be used on this project.

4.25 ORGANIZATION EMPLOYMENT DISCLAIMER

1. The CONTRACT is not intended to constitute, create, give to, or otherwise recognize a joint venture agreement or relationship, partnership, or formal business organization of any kind, and the rights and obligations of the parties shall be only those expressly set forth in the CONTRACT.

2. The parties agree that no persons supplied by the CONSULTANT in the performance of CONSULTANT's obligations under the CONTRACT are considered to be STATE employees, and that no rights of State civil service, retirement or personnel rules accrue to such persons. The CONSULTANT shall have total responsibility for all salaries, wages, bonuses, retirement, withholdings, workmen's compensation, occupational disease compensation, unemployment compensation, other employee benefits and all taxes and premiums appurtenant thereto concerning such persons, and shall save and hold the STATE harmless with respect thereto.

4.26 NONPROCUREMENT DEBARMENT AND SUSPENSION

1. In accordance with 49 CFR 29.505, and by signature on this CONTRACT, the CONSULTANT certifies its' compliance, and the compliance of any subconsultants or subcontractors present or future, by stating that any person associated therewith in the capacity of owner, partner, director, officer, principal investor, project director, manager, auditor, or any position of authority involving Federal Funds:
 - a) is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal Agency;
 - b) does not have a proposed debarment pending;
 - c) has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal Agency within the past 3 years; and
 - d) has not been indicted, convicted, or had a civil judgment rendered against the firm by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years as specified by 49 CFR paragraph 29.305(a).

Where the CONSULTANT or subconsultant is unable to certify to the statement in 4.26.1(a) above, the CONSULTANT or subconsultant will be declared ineligible to enter into CONTRACT or participate in the project.

Where the CONSULTANT is unable to certify to any of the statements as listed in 4.26.1 (b), (c) or (d), the CONSULTANT shall submit a written explanation to the STATE. The certification or explanation will be considered in connection with the STATE's determination whether to enter into CONTRACT.

2. The CONSULTANT shall provide immediate written notice to the Department if at any time the CONSULTANT or any subconsultants or subcontractors, present or future, learn that its Debarment and Suspension certification has become erroneous by reason of changed circumstances.

4.27 COVENANT AGAINST CONTINGENT FEES

The CONSULTANT warrants that he has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT, to solicit or secure this CONTRACT, and that he has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or making of this CONTRACT. For breach or violation of this warranty, the STATE shall have the right to annul this CONTRACT without liability, or in its discretion, to deduct from the contract price or consideration, or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee.

4.28 SUBLETTING, ASSIGNMENTS AND TRANSFERS

The CONSULTANT firm was chosen to perform the work on this CONTRACT based upon training and qualifications of its members. Therefore, subletting, assignment or transfer of any work to subconsultants and lower tier subconsultants, unless approved in writing by the STATE prior to performance of work, is expressly prohibited.

4.29 SUBCONSULTANTS

1. The CONSULTANT may retain Subconsultants on an "as required" basis, provided that the Subconsultants selected, and the rates to be paid, are identified on each Subconsultant's DERIVATION OF COST PROPOSAL located in the SCOPE OF WORK section, Appendix of the CONTRACT, or are approved by contract modification, or by Administrative Determination Letter, as applicable. All Subconsultants shall be required to follow the terms and conditions of this CONTRACT.

- a. Subconsultants' Compensation

Each Subconsultant will be expected to follow covenants set forth in 3.02 2. unless the subcontract is considered a Lump Sum by Task (fixed price) subcontract and not a Costs Plus Fixed Fee subcontract. However, with respect to 3.02 2.b.(5), the Indirect Costs (Overhead) rates for each Subconsultant, when applicable, will be the actual allowable overhead rate or the Negotiated Provisional rate stipulated in each Subconsultant's final DERIVATION OF COST PROPOSAL, as concurred with by the STATE. Each Subconsultant's actual allowable overhead rate or the negotiated provisional Overhead rate is separately determined and may not be the same rate as stipulated for the CONSULTANT.

- b. CONSULTANT'S Responsibility Regarding Subconsultant's Costs

The Subconsultant's allowable costs shall be governed by 3.02 2. The CONSULTANT shall monitor the billings received from the Subconsultants and ensure that all costs are documented and supported.

Regarding Indirect Costs (Overhead), the CONSULTANT is responsible for determining that the Subconsultants comply with 3.02 2.b.(6) with respect to the actual allowable or negotiated provisional Overhead rates. The Overhead rates for Subconsultants are "actual allowable" or "negotiated provisional", and must be accounted for annually. A Subconsultant may not bill more than its actual allowable Overhead rate or the negotiated provisional Overhead rate. In the event any Subconsultant violates this subsection, the penalties set forth in 3.02 2.b.(6)(a) will be assessed to the CONSULTANT.

All costs of the Subconsultants are subject to audit unless waived by the STATE. The cost to the STATE for Subconsultants shall be in amounts equal to the actual allowable costs paid to the Subconsultants.

2. The volume of work performed by the Subconsultants shall not exceed 49% of the total contract value unless waived by the STATE.

4.30 SUBCONTRACTS

The CONSULTANT agrees to insert in all subcontracts the clauses hereof entitled "Civil Rights," "Affirmative Action," "Ownership of Documents," "Patents and Copyrights", "Anti Lobbying and Disclosure," "Retention of Records" and "Immigration". The CONSULTANT further agrees to insert in any subcontract exceeding \$100,000 the clause hereof entitled "Environmental Protection."

4.31 KEY PERSONNEL

Any substitution or transfer of personnel specifically identified in CONSULTANT'S proposal as assigned to the work of this CONTRACT shall be subject to prior written approval by the STATE.

4.32 EMPLOYMENT OF PERSONNEL OF PUBLIC AGENCIES

The CONSULTANT shall not engage the service of any person or persons then in the employ of the STATE for work covered by the terms of this CONTRACT without the prior written approval of the STATE.

4.33 ANTI-LOBBYING

1. The CONSULTANT agrees to comply with the provisions of Section 1352 of Title 31, U.S.Code (Public Law 101.121) as codified in Title 48, Federal Acquisition Regulations Subpart 3.8 and Subpart 52.203-11. The legislation prohibits federal funds from being expended by a recipient or any lower tier sub-recipients of a Federal contract, grant, loan, or cooperative agreement to pay any person for influencing or attempting to influence a Federal agency or Congress in connection with the award of any Federal contract, cooperative agreement, including the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan or cooperative agreement. All disclosure statements are to be furnished to the STATE.
2. The CONSULTANT agrees to require all subconsultants and lower tier subconsultants who have agreements exceeding \$100,000 to complete the Certification of Federal Contracts (ECS Form 90-1) and, when appropriate, the Disclosure of Lobbying Activities (ECS Form 90-3) prior to execution of the Prime Consultants Agreement with the STATE. Lower tier certifications are to be maintained by the CONSULTANT.

4.34 OWNERSHIP OF DATA

1. The CONSULTANT agrees to maintain (in sufficient detail as will properly reflect all work done and results achieved in the performance of this CONTRACT) tracings, plans, specifications and maps, basic survey notes and sketches, books, records, reports, research notes, charts, graphs, comments, computations, analyses, recordings, photographs, computer programs and documentation thereof, and other graphic or written data generated in connection with the work called for in the CONTRACT; all such information and documentation to be termed "Data" under this CONTRACT.
2. All Data procured hereunder for the work funded by ADOT shall become the property of ADOT and delivered to ADOT upon request, and shall not be used or released by the CONSULTANT or any other person except with the prior written approval of the STATE; provided however, that CONSULTANT shall not be required to retain any Data not requested by ADOT within five years from the date of final payment to the CONSULTANT hereunder; and provided further that until such delivery to ADOT the CONSULTANT agrees to permit representatives of ADOT and the Federal Highway Administration to examine and review at reasonable times all Data still in the possession of the CONSULTANT.
3. All services, information, computer program elements, reports and other deliverables which may be patented or copyrighted and created under this CONTRACT are the property of the State of Arizona and shall not be used or released by the CONSULTANT or any other person except with the prior written approval of the State.

4.35 ADOT PRODUCTS

ADOT will provide the consultant with the ADOT developed software for the sole purpose of completing this contract, as set forth in the Site License Contract (which includes a detailed list of Software that will be provided to the consultant). The software is provided to the consultant solely for the purpose of completing this contract and for no other purposes. ADOT developed software including: manuals, electronic information, programs, and associated materials, remains the property of ADOT. Any use of this software for purposes other than the fulfillment of this contract is strictly prohibited. The consultant shall not copy the software or provide, distribute or demonstrate the software to other entities. Upon completion of the contract or when otherwise notified by ADOT, the contractor will return all software, backup copies, manuals, electronic information and associated materials to ADOT.

4.36 RETENTION OF RECORDS

1. The CONSULTANT and any subconsultant/subcontractor/vendor shall keep and maintain all books, papers, records, accounting records, files, accounts, reports, costs proposals with backup data and all other material relating to the CONTRACT and related project(s), and shall make all such material available at any reasonable time during the term of work on the CONTRACT and related project(s) and for five (5) years from the date of final payment to the CONSULTANT for auditing, inspection and copying upon the STATE'S request, or at the request of the Federal Highway Administration or any other authorized representative of the Federal Government.
2. The CONSULTANT shall insert in each of its subcontracts the above requirement and also a clause requiring its subconsultants to include the above requirement in any lower-tier subcontracts or purchase orders.

4.37 REVIEW AND INSPECTION

Representatives of the STATE and the Federal Highway Administration are authorized to review and inspect the CONTRACT activities and facilities during normal business hours.

4.38 PROPERTY OR EQUIPMENT

Except as otherwise provided in this CONTRACT, the lease, rental or purchase of property or equipment to perform the work herein described must have the prior written approval of the STATE. The control, utilization and disposition of property or equipment acquired using FEDERAL/STATE funds shall be determined by the STATE in accordance with the property management standards set forth in 49 CFR Part 18 , ADOT Manual - FIN 11.02, and Highways Division Policy and Implementation Memorandum No. 89-04.

4.39 CIVIL RIGHTS

1. The CONSULTANT is required to comply with Executive Order 75-5, "Non-discrimination in Employment by Government Contractors and Subcontractors," which is hereby included in its entirety by reference and considered a part of this CONTRACT.
2. The CONSULTANT is required to comply with Title VI of the Civil Rights Act of 1964, as amended. Accordingly, Title 49, Code of Federal Regulations, Part 21 through Appendix H and Title 23, CFR 710.405 (b) are made applicable by reference and are hereinafter considered a part of this CONTRACT.
3. The CONSULTANT is required to comply with the provisions of Executive Order 11246, entitled "Equal Employment Opportunity," as amended by Executive Order 11375, and

as supplemented in Department of Labor Regulations (41-CFR Part 60). Said provisions are made applicable by reference and are hereinafter considered a part of this CONTRACT.

4. The CONSULTANT shall post in conspicuous places available to employees and applicants for employment, the following notice:

It is the policy of this company not to discriminate against any employee, or applicant for employment, because of race, color, religion, creed, national origin, sex, age, handicapped, or disabled veterans and Vietnam era veterans. Such actions shall include, but are not limited to: employment, upgrading, demotion, transfer, recruitment, or recruitment advertising; laying-off or termination; rates of pay or other compensation; and selection for training, and on-the-job training. Also, it is the policy to insure and maintain a working environment free of harassment, intimidation and coercion.

4.40 AFFIRMATIVE ACTION

CONSULTANT shall take the following affirmative action steps with respect to securing supplies, equipment or services under the terms of this CONTRACT:

1. Include qualified firms owned by socially and economically disadvantaged individuals on solicitation lists.
2. Assure that firms owned by socially and economically disadvantaged individuals are solicited whenever they are potential sources.
3. When economically feasible, dividing total requirements into smaller tasks or quantities so as to permit maximum participation by firms owned by socially and economically disadvantaged individuals.
4. Where the requirement permits, establishing delivery schedules which will encourage participation by firms owned by socially and economically disadvantaged individuals.
5. Use the services and assistance of the Small Business Administration, the Office of Minority Business Enterprise of the Department of Commerce and the Community Services Administration as required.

4.41 PARTICIPATION BY DISADVANTAGED BUSINESS ENTERPRISES

The CONSULTANT is required to adhere to the commitment made to participation by ADOT certified Disadvantaged Business Enterprises (DBE) as indicated in the firms Technical Proposal or subsequently agreed to by the STATE during negotiations. The STATE, at its discretion on a case by case basis, may waive the above limitations.

The CONSULTANT must submit the DBE Compliance Report to the Civil Rights Office by the 3rd Friday of each month. The report shall indicate the amount earned by and paid to each DBE working on the project for the preceding month.

4.42 ENVIRONMENTAL PROTECTION

(This clause is applicable if this contract exceeds \$100,000.00. It applies to Federal Aid Contracts Only.)

CONSULTANT is required to comply with all applicable standards, orders or requirements issued under Section 306 of the Clean Air Act (42 U.S.C. 1857 (h)), Section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15) which prohibit the use under non-exempt Federal contracts,

grants or loans of facilities included on the EPA List of Violating Facilities. Violations shall be reported to the Federal Highway Administration and to the U.S.E.P.A. Assistant Administrator for Enforcement. (EN-329).

4.43 ENERGY CONSERVATION

(This clause is applicable to Federal Aid Contracts Only.)

CONSULTANT is required to comply with mandatory standards and policies, as applicable, relating to energy efficiency which are contained in the State Energy Conservation Plan issued by the State of Arizona in compliance with the Energy Policy Conservation Act (P.L. 94-163).

4.44 PUBLICATION PROVISIONS

The CONSULTANT shall provide annual, quarterly or monthly written progress reports requested by the STATE. Prior to completion of the CONTRACT and related project(s), the CONSULTANT shall prepare a final report summarizing activities, conclusions, and recommendations in a form as prescribed by the STATE, and this report shall be a prerequisite for final payment. Publication rights to all reports are reserved by the STATE. The CONSULTANT shall not release information developed under the CONTRACT prior to publication, except upon written approval of the STATE.

4.45 PUBLICATION PROVISIONS (RESEARCH AND UNIVERSITIES)

(Not applicable to this contract)

4.46 PATENTS AND COPYRIGHTS

All services, information, computer program elements, reports and other deliverables which may be patented or copyrighted and created under this CONTRACT are the property of the State of Arizona and shall not be used or released by the CONSULTANT or any other person except with the prior written approval of the STATE.

4.47 PATENTS AND COPYRIGHTS (RESEARCH AND UNIVERSITIES)

(Not applicable to this contract)

4.48 FEDERAL IMMIGRATION AND NATIONALITY ACT:

1. General: The consultant, including all subconsultant, shall comply with all federal, state and local immigration laws and regulations, as set forth in Arizona Executive Order 2005-30, relating to the immigration status of their employees who perform services on the contract during the duration of the contract. The State shall retain the right to perform random audits of consultant and subconsultant records or to inspect papers of any employee thereof to ensure compliance.
2. Compliance Requirements: By submission of a proposal, the consultant warrants that the consultant and all proposed subconsultants are and shall remain in compliance with all federal, state and local immigration laws and regulations relating to the immigration status of their employees who perform services on the contract. The State may, at its sole discretion, require evidence of compliance from the consultant shall have ten working days from the receipt of the request to supply adequate information.

The Department will accept, as evidence of compliance, a showing by the consultant or subconsultant that it has followed the employment verification provisions of the Federal Immigration and Nationality Act as set forth in Sections 274A and 274B of that

Act, including implementation of regulations and agreements between the Department of Homeland Security and the Social Security Administration's verification service.

The Consultant shall include the provisions of Subsection 4.30 in all its subcontracts.

3. **Sanctions for Non-Compliance:** Failure to comply with the immigration laws or to submit proof of compliance constitutes a material breach of contract. The Department will reduce the consultant's compensation by \$10,000 for the initial instance of non-compliance by the consultant or subconsultant. Should the same consultant or subconsultant commit subsequent violations within a two-year time period from the initial violation, the consultant's compensation will be reduced by \$50,000 for each violation. The third instance by the same consultant or subconsultant within a two-year period may result, in addition to the \$50,000 reduction in compensation, in removal of the offending consultant or subconsultant, suspension of work in whole or in part or, in the case of a third violation by the consultant, termination of the contract for default. In addition, the Department may debar a consultant or subconsultant who has committed three violations within a two-year period for up to one year. For purposes of this paragraph, a violation by a subconsultant does not count as a violation by the consultant.

Any delay resulting from a sanction under this subsection is a non-excusable delay. The consultant is not entitled to any compensation or extension of time for any delays or additional costs resulting from a sanction under this subsection.

An example of the sanctions under this subsection is presented in the following table:

Offense by:			Reduction in Compensation
Consultant	Subconsultant A	Subconsultant B	
First			\$10,000
	First		\$10,000
	Second		\$50,000
		First	\$10,000
	Third		\$50,000 *
* May, in addition, result in removal of the subconsultant and/or debarment of the subconsultant.			

In Witness whereof the parties hereto have executed this agreement as of the day and year first herein written.

FOR THE STATE

ARIZONA DEPARTMENT OF TRANSPORTATION

Date

By: _____

Title

FOR THE CONSULTANT

FIRM NAME

Date

By: _____

Title